

face, while the North Carolina one is pale green on both sides. So far there seemed to be some ground for distinction, but on looking about in the woods I found several in which one of the three leaflets was partly divided. In one case the division extended two-thirds of the distance towards the midrib. Still the gray under surface seemed uniform through all these wild plants. I was surprised to find all of them barren, and went to a locality where I knew I had collected ripe fruit, and found these plants quite different from the early ones. They were larger and stouter, purple stemmed, with two leaves on a stalk as in the North Carolina one, the leaves pale green on both sides, as in the North Carolina one, and just opening its flowers, also as in the one from North Carolina. I did not know before that there were early and late flowering ones with us; that the early ones had gray under surfaces, and that the early ones were barren. It will be interesting to know whether this holds good in other localities. But I suppose we shall have to consider *A. polymorphum* as merely *A. triphyllum*, without even honoring it with a varietal name.

By the way, Engler, in De Candole's monograph, adopts Schott's name, *Arisæma quinatum* for this *A. polymorphum*, and Blume's name, *Arisæma atrorubens*, for our *A. triphyllum* and varieties.—THOMAS MEEHAN.

EDITORIAL NOTES.

THE PHILADELPHIA MEETING promises to be an unusually important gathering for botanists.

ABOUT TWENTY BOTANICAL NOTES are found in the first part of the *Proc. Philad. Acad.* for 1884, principally by Mr. Thos. Meehan.

IN THE GAZETTE for April, p. 53, 54, *Antirrhinum Nevinianum* was by a clerical mistake given as *A. Nivenianum*. It should be corrected accordingly.

THE SUMMER COURSE IN BOTANY at Cambridge this year will be under the charge of Prof Wm. Trelease. It begins July 7th and lasts six weeks, and among advanced students special attention will be given to the study of Cryptogams.

THE WHOLE EDITION of the translation of Nägeli and Schwendener's work on the microscope, about to be published by a London firm, was recently destroyed by fire. It will again be put through the press, however, with as little delay as possible. This is the most important work for botanists on microscopic manipulation yet issued in our language.

A SOCIETY for the protection of alpine plants has been formed at Geneva. "L'association pour la protection des plantes" is its title, and already it numbers about two hundred members. The means used are to spread a knowledge of the danger by means of correspondence and publications; to post placards in Swiss hotels; to cultivate for sale such alpine plants as can be grown in the valleys, and thus furnish them already potted for transportation.

AS AN INSTANCE of polymorphic species *Euphrasia officinalis*, L., might be mentioned. Mr. Frederick Townsend, in a recent number of the *Journal of Botany*, has grouped the many forms, naming fourteen groups, and preparing an analytical key which looks formidable enough for a large genus.

MR. MEEHAN has published quite a sizeable catalogue, with notes, of the plants he collected in July, 1883, during an excursion along the Pacific coast in S. E. Alaska. He enumerates about two hundred and sixty species and the local notes with regard to occurrence, native names and uses are very interesting.

THE METHOD of sectioning diatoms practiced by Prof. W. J. Sollas, of England, and communicated by him to the Royal Microscopical Society, is to harden in a mixture of chromic acid, osmic acid, and absolute alcohol, stain with hæmatoxylin or eosin, and then cut by freezing in gelatine jelly, from which the sections are directly mounted in glycerine without passing through water. He hopes by this means to obtain a clear insight into the protoplasmic structure.

IT IS PLEASANT to note the interest taken in fungi in England. We have now to announce a manual covering the British Discomycetes, with illustrations of the genera, by William Phillips, F. L. S. The author's special knowledge and excellent facilities warrant us in anticipating a thoroughly good work. The price will not exceed \$2.50, and a liberal subscription will reduce it. Address the author at Canonbury, Shrewsbury, England.

THE FOSSIL FLORA of Greenland now numbers 617 species, according to Prof. Heer's recent studies, distributed through the Cretaceous and Tertiary epochs. Only one dicotyledonous plant is known from the lowest beds, and the character of the vegetation shows the climate at that time to have been subtropical. A slow change took place until in the Lower Miocene no tropical forms remained, and the mean yearly temperature fell to about 53° F.

SWITZERLAND HAS a society to prevent the extermination of wild plants, and England has introduced a bill in the House of Commons looking to the same end. In this country we have only a few local laws for this purpose, but we agree with *Science* that at present the danger of valuable kinds becoming extinct is very slight. Some are likely to become rare in certain localities, however, so that protective laws applicable to restricted districts would be desirable in special cases.

DURING THE FIRST two days of the Association at Philadelphia, botanists will find the registry book of the American Botanical Club at the Academy of Natural Sciences, and upon entering their names will become members of the club, and entitled to its privileges. A reception will be given the club on Monday evening, September 8, by the Botanical Section of the Philadelphia Academy of Sciences at the rooms of the Academy, it being the date of their regular monthly meeting.

AT A FEBRUARY meeting of the Linnean Society of London, Mr. R. Miller Christy read a paper entitled "The power of penetrating the skins of animals

possessed by the seed of *Stipa spartea*." The fact is well known that the seeds of *Spartea* are driven into the soil by means of a very sharp point and the power of hygroscopic movement possessed by the long bent and twisted awn. It also appears that animals, especially woolly animals, sometimes have their skins penetrated by these same seeds, but there is no evidence that they are directly a cause of death. Mr. Christy was of the opinion that this was a device to secure the dispersion of this seed (one of the "buffalo grasses") by means of the buffalo. But the opinion seemed to prevail in the Society that it was simply a contrivance for penetrating the ground, which is the common view in regard to it in this country.

THERE HAS NEVER been greater activity in the study of bacteria than at the present time. Among notable works lately issued are *Les organismes vivants de l'atmosphère*, by Miquel, *Bacteria*, by Magnin and Sternberg, both by authoritative bacteriologists, and the life of Pasteur, giving the methods of the great leader, of which an English translation will soon be issued by the Appletons. Among the recent announcements are the detection of the bacteria of yellow fever, by Dr. Domingos Freire, of Rio de Janeiro; the communication to the French Academy by M. Pasteur, that he is able to inoculate dogs and render them proof against madness; the accomplishment of what the German commission under Koch has yet failed to do, the transmission of cholera to the lower animals by Dr. Vincent Richards, of Calcutta, who experimented with pigs; and the discovery that flowing water retards bacterial development, by Dr. Pehl, of St. Petersburg.

A NEW WORK on British *Hymenomyces* (mushrooms, toadstools, etc.) is to be published as soon as the subscription list will warrant the expense. Whoever has attempted the collection and naming of these plants has met with the great need of fuller and more exact descriptions, a need the present work is intended to supply. It is to embody translations from Fries' *Monographia*, a work so rare as to be practically inaccessible, as well as from the *Hymenomyces Europæi*, the *Epicricis*, and the *Icones* of the same author. The rare classical scholarship of the eminent mycologist who has undertaken the work, the Rev. John Stevenson, assures us of the faithful rendering of the Latin text; while the assistance of several well known botanists who are otherwise to co-operate with the author, and the numerous illustrations by Worthington G. Smith, will together place the work among those indispensable to every amateur or professional botanist who gives attention to this group of plants. The fungologists of this country should not be tardy in encouraging so promising a work. It will be published in two octavo volumes at 10s. 6d. each. Subscriptions are to be sent to Rev. John Stevenson, Glamis, Forfarshire, N. B., Scotland.